

REMARKS

It is acknowledged that the request for continued examination has been granted and that prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Claims 1-4, 6-14 and 16-20 remain present in this application. Claims 1, 14 and 20 have been amended to address the objections thereto in paragraph 4 of the Official Action under 35 U.S.C. §102 (b). In view of the corrections made, withdrawal of the objection and rejections are respectfully requested.

Claim 15 has been cancelled.

In the Non-Final Official Action of June 2, 2004, Claims 1-4, 6-14 and 19-20 were rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 5,560,985 to *Watanabe et al.* Independent Claims 1, 14 and 20 have been amended and are currently presented as Jepson Claims. Interpretation of such claims ordinarily includes the preamble recitation, and certainly does as to a feature recited after transition to the "improvement" portion of the claim. Therefore, the molded fuel cell endplate of Claim 1 suitable for use at temperatures of 70°C or higher, and the injection molded fuel cell endplates of Claims 14 and 20 suitable for use at temperatures of 70°C or higher, are undoubtedly a part of the claim as is seen from the following cases. Support for the instantly claimed use of the fuel cell endplate at temperatures of 70°C or higher occurs throughout the instant specification. See, for example, Page 1, lines 32-33 and Page 5, second full paragraph, among others.

In *Rowe v. Dror*, 42 USPQ2d 1550, 1553-4 (CAFC 1997) the Court reiterated that in Jepson-type claims the structural limitations of the preamble are an integral part of the Claim:

Inspection of the entire record in this case reveals that "angioplasty" is, in fact, a structural limitation of Rowe's claims. To begin with, the form of the claim itself, the so-called "Jepson" form, suggests the structural

importance of the recitations found in the preamble. The Jepson form allows a patentee to use the preamble to recite "elements or steps of the claimed invention which are conventional or known." 37 C.F.R. 1.75(e) (1996). When this form is employed, the claim preamble defines not only the context of the claimed invention, but also its scope. See *Pentec, Inc. v. Graphic Controls, Corp.*, 776 F.2d 309, 315, 227 USPQ 766, 770 (Fed. Cir. 1985) ("Although a preamble is impliedly admitted to be prior art when a Jepson claim is used, . . . the claimed invention consists of the preamble in combination with the improvement.") (citations omitted); United States Patent and Trademark Office, Manual of Patent Examining Procedure Section 608.01(m) (6th ed. rev. Sept. 1995) ("[The Jepson form of claim] is to be considered a combination claim. The preamble of this form of claim is considered to positively and clearly include all the elements or steps recited therein as a part of the claimed combination."). Thus, the form of the claim itself indicates Rowe's intention to use the preamble to define, in part, the structural elements of his claimed invention. The device for which the patent claims "an improvement" is a "balloon angioplasty catheter."

See, also, Epcon Gas Systems Inc. v. Bauer Compressors Inc., 61 USPQ2d 1470, 1475 (CAFC 2002) wherein the Court noted:

Jepson form allows a patentee to use the preamble to recite "elements or steps of the claimed invention which are conventional or known." *Kegel Co. v. AMF Bowling, Inc.*, 127 F.3d 1420, 1426, 44 USPQ2d 1123, 1127 (Fed. Cir. 1997) (quoting 37 C.F.R. § 1.75(e) (1996)). However, in *Rowe v. Dror*, this court stated that "[w]hen this form is employed, the claim preamble defines not only the context of the claimed invention, but also its scope." 112 F.3d 473, 479, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). According to Rowe and Kegel, the fact that the patentee has chosen the Jepson form of the claim evidences the intention "to use the preamble to define, in part, the structural elements of his claimed invention." *Id.*; *Kegel*, 127 F.3d at 1426, 44 USPQ2d at 1127. Thus, the preamble is a limitation in a Jepson-type claim. See *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 315, 227 USPQ 766, 770 (Fed. Cir. 1985); 3 Donald S. Chisum, *Chisum on Patents* §8.06[1][d] n.21 (Supp. 1999).

Although Epcon disputes that claims 2 and 16 of the '455 patent are in Jepson form, the prosecution history shows that Epcon acquiesced in the Examiner's statement that the claims were Jepson claims. Epcon amended claim 16 to correctly put it in Jepson format, and initially presented claim 2 in correct Jepson format in the same amendment, stating, "[t]he herein amendments are believed to address all of the Examiner's 35 USC 112

objections to the claims.” On this record, there can be no real debate that the claims are presented in Jepson format.

Because claims 2 and 16 are in Jepson format, the preamble helps define the scope of the invention.

Accordingly, this rejection should be withdrawn because *Watanabe et al* does not relate to a fuel cell endplate suitable for use at temperatures of 70°C or higher.

Additionally, *Watanabe et al* describes the sheet material and toe puff for safety shoe. Mechanical strength is the primary and critical property required of the material. Attention is drawn, for example, to col. 1, lines 15-17 of *Watanabe et al* (“suitable for use in the field where mechanical strength is required”); col. 1, lines 34-36 (“...strength of the upper shoe for the protection against the dropping of a heavy material”) and col. 2, lines 25-28: “Another object of the present invention is to provide a novel thermoplastic resin to puff for a safety shoe having a strength conforming to the specifications for toe puffs of safety shoes....” On the other hand, the fuel cell assembly of the present invention, as the currently amended claims show, is and should be capable of functioning at use temperatures of 70°C or higher. Such an use or performance is neither taught nor even suggested by *Watanabe et al*. A valid anticipation rejection under 102(b) should be precisely identical in the prior art. It is respectfully submitted that such an anticipation is lacking in the present case. Withdrawal of the 102(b) rejection is, therefore, respectfully requested.

As to Claim 10, the Examiner states that the pultrusion techniques limitation of Claim 10 “does not patentably distinguish the product because what is given patentability consideration is the product itself and not the manner in which the product was made.” The rejection notwithstanding, a “structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product.” see MPEP 2113. The MPEP summarizes the holding of *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223

(CCPA 1979) that "interbonded one to another by interfusion" is a process limitation similar to "intermixed," "ground in place," "press fitted," "etched," and "welded":

The trouble with the solicitor's approach is that it necessarily assumes that claim 1 should be construed as a product claim containing a process, rather than structural, limitation. However, it seem to us that the recitation of the particles as 'interbonded one to another by interfusion between the surfaces of the perlite particles' is as capable of being construed as a structural limitation as 'intermixed,' 'ground in place,' 'press fitted,' 'etched,' and 'welded,' all of which at one time or another have been separately held capable of construction as structural, rather than process, limitations. [FN7] The correct inquiry therefore, it appears to us, is whether the product defined by claim 1 is patentably distinguishable over the disclosures of Thomas and Pierce in view of the structural limitation defining the panel as 'consisting essentially of expanded perlite particles * * * interbonded one to another by interfusion between the surfaces of the perlite particles.' [FN8] Neither Thomas nor Pierce disclose expanded perlite *1293 particles interbonded one to another by interfusion between the surfaces thereof; it is not therefore reasonable to view such interbonding to be obvious by considering the references collectively.

Like "interbonded" and "press fitted" in the *Garnero* case, the pultrusion techniques of the instant case imply a structural limitation in Claims 10, 14 and 20 and should be considered.

In the Non-Final Official Action of June 2, 2004, Claims 15-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 5,560,985 to *Watanabe et al.*, and further in view of United States Patent No. 4,214,969 to *Lawrence*. It is respectfully stated that neither *Watanabe et al* nor *Lawrence* is analogous art. Section 2141.01 (a) of the MPEP provides guidance by quoting *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992):

In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.

The MPEP further states that:

PTO Classification is some evidence of analogy, but similarities and differences in structure and function carry more weight. In *In re Clay* the “court disagreed with the PTO’s argument that the reference and claimed inventions were part of the same endeavor, “maximizing withdrawal of petroleum stored in petroleum reserves,” and found that the inventions involved different fields of endeavor since the reference taught the use of the gel in a different structure for a different purpose under different temperature and pressure conditions, and since the application related to storage of liquid hydrocarbons rather than extraction of crude petroleum.” See also *Wang Laboratories Inc. v. Toshiba Corp.*, 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993) wherein single inline memory modules (SIMMs) for an industrial controller was not in the same field of endeavor as the claimed SIMMs for installation on a printed circuit motherboard for use in personal computers because of the differences in structure and function.

As demonstrated above, the *Watanabe et al* patent is non-analogous art.

Watanabe et al discloses a molding sheet material characterized by having a sandwich structure of a reinforced core layer of a fiber reinforced thermoplastic resin and a woven fabric or random mat of reinforcing fiber. The only use disclosed for the molding sheet material is as a toe puff for a safety shoe. Comparatively, the present invention is directed to a long fiber reinforced resin molded into a fuel cell endplate that is capable of withstanding use temperatures of 70°C or higher. Based on the structure and particularly the function of the *Watanabe et al* reference it is clear that *Watanabe et al* is not in the field of mounting and supporting fuel cells. Withdrawal of the 103(a) rejection based on *Watanabe et al* is, therefore, respectfully requested.

The *Lawrence* patent is also non-analogous art. The *Lawrence* patent is directed to a bipolar current collector-separator which employs electrically conductive endplates. See, i.e., Col 3 lines 62-64. Structurally, the endplates in *Lawrence* and those of the present invention are dissimilar. The endplates in *Lawrence* are made from molded aggregates of electrically conductive graphite particles and a thermoplastic fluoropolymer resin. See i.e., Example 1, wherein a resin and graphite powder were blended together to form a “homogenized mixture” of graphite particles and thermoplastic binder, whereas

the endplates in the present invention are made from a long fiber reinforced thermoplastic resin.

Moreover, the functionality of the endplates disclosed in *Lawrence* is distinctly different than those in the present invention. Therein, the endplates are electrically conductive and connected to a DC power source via tabs. *See* Col 4 lines 25-27. In contrast, the endplates of the present invention are not configured to be a conduit for a power source. Thus, substituting the graphite particles of *Lawrence* with the glass fiber of the present invention will result in a non-conductive sheet and thus will be incapable of being used in the *Lawrence* invention.

FACT THAT THE CLAIMED INVENTION IS WITHIN THE CAPABILITIES OF ONE OF ORDINARY SKILL IN THE ART IS NOT SUFFICIENT BY ITSELF TO ESTABLISH *PRIMA FACIE* OBVIOUSNESS

A statement that modifications of the prior art to meet the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cr. 2000) (Court reversed obviousness rejection involving technologically simple concept because there was no finding as to the principle or specific understanding within the knowledge of a skilled artisan that would have motivated the skilled artisan to make the claimed invention); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.).

MPEP §2143.01, 4th heading.

Withdrawal of the 103(a) rejection based on *Lawrence* is, therefore, respectfully requested.

Further to the Examiner's rejection under 35 U.S.C. §103(a) based on *Watanabe et al* in view of *Lawrence*, it is respectfully submitted that both *Watanabe et al* and

Lawrence can not be combined. Clearly stated in §2143 of the MPEP “the proposed modification cannot render the prior art unsatisfactory for its intended purpose” and “the proposed modification cannot change the principle of operation of a reference.” There is no expectation that the fuel cell assembly of *Lawrence* would be operable if the endplates of *Lawrence* were made from the material disclosed in *Watanabe et al.* Again in Col 3, lines 60-64 *Lawrence* discloses a cell assembly which “includes an anodic endplate 1 and a cathodic endplate 2, both of which are molded aggregates of electrically conductive graphite particles and a thermoplastic fluoropolymer resin.” There is no teaching or reasonable basis for expecting that the fiber reinforced thermoplastic material of *Watanabe et al* will operate as the electrically conductive material required in *Lawrence*. Therefore, *Watanabe et al* and *Lawrence* can not be combined since the combination will render *Lawrence* unfit for its intended purpose, and *Watanabe et al.* with or without *Lawrence* does not disclose, teach or suggest the instant fuel cell assembly capable of withstanding use temperatures of 70°C or higher. Withdrawal of the 103(a) rejection based on both *Watanabe et al* and *Lawrence* is, therefore, respectfully requested.

All claims should be allowed.

This *Response* is being filed with a *Petition* and fee for a one-month extension of time. If additional extensions or fees are necessary, please consider this a *Petition* therefor and charge any fees to Deposit Account No. 50-0935.

Respectfully submitted,



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